Before the
U.S. DEPARTMENT OF COMMERCE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
Gaithersburg, MD, 20899

In the Matter of	)	
	)	
Request for Information on Implementation	)	
of the United States Government National	)	Docket No. 230818-0199
Standards Strategy for Critical and Emerging	)	
Technology (USG NSSCET)	)	
	)	
	)	

COMMENTS OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION

Patrick Lozada
Director, Global Policy

Tom McGarry
Vice President, Standards

TELECOMMUNICATIONS INDUSTRY ASSOCIATION
1310 N. Courthouse Road
Suite 890
Arlington, VA 22201
(703) 907-7700

Table of Contents

Before the
U.S. DEPARTMENT OF COMMERCE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
Gaithersburg, MD, 20899

In the Matter of	)	
	)	
Request for Information on Implementation	)	
of the United States Government National	)	Docket No. 230818-0199
Standards Strategy for Critical and Emerging	)	
Technology (USG NSSCET)	)	
	)	

As a Standards Developing Organization ("SDO") with decades of experience creating standards for Critical and Emerging Technologies ("CET"), the Telecommunications Industry Association ("TIA") appreciates the opportunity to provide input regarding the United States Government National Standards Strategy for Critical and Emerging Technology ("USGNSSCET").

TIA supports the Administration's focus on partnership with the private sector in USG NCSSCET. Strong partnerships must be at the core of any successful standardization strategy, and government action on standardization policy should be constantly calibrated in consultation with stakeholders from industry, academia, and civil society. To this end, our high-level message is that the U.S. government can support U.S. technology leadership, national security, and economic prosperity through an approach focused on the following general ideas:

1. doubling down on the rules-based and private sector-led approach to standards development that has made the U.S. a leader,
2. driving towards a global approach to standards that maximizes interoperability and minimizes technical barriers to trade and unjustified government interventionism,
3. making targeted investments in research and development, and
4. calibrating U.S. government engagement to align with the changing nature of standards development for emerging technologies.

TIA will share additional information regarding specific suggestions that operationalize our general recommendations later in this filing.

I. ABOUT TIA

TIA is an industry association that represents more than four hundred U.S. and global manufacturers and vendors of telecommunications equipment and services. In addition to engaging with government stakeholders in support of member company priorities, TIA is an ANSI-accredited SDO that has been involved in the development of thousands of standards over its 90-year history.

Currently, more than 1,000 individuals - representing network equipment manufacturers, service providers, government entities, and end users - currently serve on TIA's Engineering Committees. TIA standards development committees include:

- TR-60 | ICT Lifecycle Management
- TR-51 I Smart Utility Networks
- TR-45 I Mobile and Point-to-Point Communications Standards
- TR-42 I Telecommunications Cabling Systems
- TR-41 | Performance and Accessibility for Communications Products
- TR-14 | Structural Standards for Communication and Small Wind Turbine Support Structures
- TR-8 | Mobile and Personal Private Radio Standards

While TIA's standards are international in scope, TIA also engages directly in other international standards development organizations around the world, including in the following:

- TIA is a founding partner of OneM2M, a global standards development partnership that develops standards for Machine-to-Machine and IoT technologies. Other partners in OneM2M include standards organizations from Japan, China, Europe, India, and Korea.
- TIA is active in IEC as well as ISO/IEC JTC 1 Committees, including the following committees and subcommittees:
    - TC 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories
    - SC46A: Coaxial cables
    - SC46C: Wires and symmetric cables
    - SC46F: RF and microwave passive components
    - TC76: Optical radiation safety and laser equipment
    - TC86: Fibre optics
    - SC86A: Fibres and cables
    - SC86B: Fibre optic interconnecting devices and passive components

    - SC86C: Fibre optic systems and active devices
    - ISO/IEC JTC 1/SC 25: Interconnection of information technology equipment
    - ISO/IEC JTC1/SC 25WG 1: Home Electronic System
    - ISO/IEC JTC 1/SC 25WG 3: Customer Premises Cabling
    - ISO/IEC JTC 1/SC 25/WG 4: Interconnection of Computer Systems and Attached Equipment
    - ISO/IEC JTC 1/SC 25/WG 5: Taxonomy and Terminology of Intelligent Homes
    - IEC Systems Committee Smart Cities- Electrotechnical Aspects of Smart Cities
- TIA holds six Secretariats and several international leadership positions, including: Liaisons representatives, Project editors, Conveners, Secretaries, and Project Leaders.
- TIA is a participating standards organization of the ITU-T Global Standards Collaboration (GSC) initiative.
- TIA signed a MOU with TSDSI in 2019 to cooperate on standards projects related to 5G, Smart Buildings, and other telecommunications-related standards projects.
- TIA is the global administrator of the Mobile Equipment Identifier ("MEID") numbering system, which provides identifiers for mobile devices and related applications.
- TIA is the parent of QuestForum, which manages TL9000 – the leading Quality Management System ("QMS") for the ICT industry. As such, understanding and mitigating risks to the ICT supply chain is central to our mission as an organization.
- TIA's QuestForum has recently created a first draft of SCS 9001, the world's first standard that protects organizations' supply chains from malware and cyberattacks.
- TIA was a founding partner for 3GPP2, a consortium of five SDOs in the U.S., Japan, Korea, and China. 3GPP2 developed the CDMA 2000 standards for 3G and TR-45 continues to develop related standards.

Additionally, TIA's Standards and IPR Policy committee engages extensively with U.S. and global government stakeholders on issues related to standards policy. TIA's Director of Global Policy, Patrick Lozada, is a voting member of ANSI's International Policy Advisory Group, participates in ANSI's China and India Task Forces, and serves as a cleared advisor to the Office of the United States Trade Representative and the Department of Commerce on Industry Trade Advisory Committee 6: Digital Economy. TIA's CEO Dave Stehlin sits on ANSI's Board of Directors, and TIA's Vice President of Standards Tom McGarry is a member of ANSI's Organizational Member Forum. Given this extensive engagement with the process of and policies regarding the development of international standards for critical and emerging technologies both in the U.S. and abroad, TIA is well situated to comment on how the government can strengthen U.S. leadership in this domain.

II. PRIVATE SECTOR INNOVATION MUST REMAIN AT THE CENTER OF STANDARDS DEVELOPMENT

TIA appreciates that the USGNSSCET states up front the United States' commitment to "the rules-based and private sector-led approach to standards development."[1] Private sector problem-solving is the beating heart of the global standards system for CET – stakeholders coming together from around the world to solve problems. To do this, technology has to come first. Timely, effective, and technologically robust solutions have to win over ones driven by political agendas that do not consider the state of technology, market needs, or whether a standard is the right solution to the problem at hand. Standardization processes are often a balance of cooperation and competition with stakeholders who are cooperating to develop a solution that can be widely used but also, in many instances, competing to shape the resulting standard.

Private sector stakeholders come with the appropriate incentives baked into their participation because they are strongly motivated to arrive at the optimal technical solution to help create new markets and realize the economies of scale that follow the broad adoption of a standard. On an individual level, private sector stakeholders seek to position their enterprise as a technological and market leader, increase the value of the market for the standard to the public, and increase their revenue. While they may participate for long-term gain, they also participate at a significant cost.

By contrast, governments – particularly non-democratic ones that manage non-market economies – may have different interests than private sector stakeholders. They may also lack staff with the appropriate technical expertise to provide meaningful contributions in the standards process and have fundamentally different considerations regarding cost. In supporting U.S. competitiveness in international standards development, the government should focus on enhancing the private sector competition that

[1] The White House, *United States Government National Standards Strategy for Critical and Emerging Technology*, (May 2023), 3. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/05/US-Gov-National-Standards-Strategy-2023.pdf.

drives the process and avoid emulating the mistakes of its strategic competitors by introducing political objectives into a process that is best driven by the private sector and the consensus-driven selection of meritorious solutions.

III. STAKEHOLDER CONSULTATION SHOULD BE SOUGHT AT EVERY STEP OF STRATEGY IMPLEMENTATION

TIA appreciates the opportunity to comment on the implementation of the Standards Strategy. We also believe that the stakeholder consultation process by the National Institute of Standards and Technology ("NIST") – as well as its work with the NIST Visiting Committee on Advanced Technology – has been thorough and effective in terms of soliciting industry feedback and buy-in. However, consultation during the process of strategy development raised some concerns on the part of industry. While a small group of stakeholders was consulted in the earlier stage of the development of the standards strategy, the structure and extent of the consultation was limited and did not fully reflect the nature of standards as a public-private partnership.

This stakeholder consultation should also include bringing the private sector into government-to-government dialogues that directly impact the private sector. For instance, in the U.S.-EU Transatlantic Trade and Technology Council Working Group on standards, there has been little to no industry engagement in the working group on AI that developed shared definitions and taxonomies for 60+ terms. If the private sector does not see its interests reflected in initiatives like this, it may have little motivation to support and adopt such standardization definitions in the future. That said, as the implementation plan moves forward, TIA and our members look forward to being partners in the success of the Strategy, which we hope will be built on consultation with stakeholders throughout the process.

IV. GOVERNMENT'S ROLE SHOULD BE TARGETED TO SPECIFIC AREAS OF CONCERN

The U.S. government can most effectively support American leadership of a consensus-driven, rules-based standardization system by focusing the expansion of U.S. participation toward relevant SDOs where governments play the central role in decision-making. For emerging technologies, the government-driven forum of greatest concern is the International Telecommunication Union ("ITU"). While the election of Doreen Bogdan-Martin as Secretary General was an important success in the push for an effective and consensus-driven system – it should be the first step, not the last, in supporting the continued relevance of the organization's work. As a voting member of the ITU and one of its most significant financial contributors, the U.S. government should double down on its ongoing efforts to promote institutional reforms within the organization aimed at addressing "mission creep" at the ITU. This "mission creep" occurs wherein the body loosely interprets its mandate into technology areas where it a) does not have the relevant expertise and b) where more commercially relevant work is already being undertaken by other SDOs. The ITU should also be pressed to focus on high-quality contributions instead of relying on rules that have led to many low-quality contributions. In particular, the Administration should work with its allies and other like-minded foreign government partners to strengthen standards development process safeguards within the Standardization Sector ("ITU-T") and ensure that the rules and procedures of the sector are followed by staff, leaders of technical committees, and all members.

While there has been extensive discussion about the importance of expanding U.S. government engagement at the ITU,[2] TIA members note that the United States is not adequately represented by staff in some study groups. For example, ITU-T SG15 – which deals with important and commercially relevant communications technologies for optical networks, has not had a visible U.S. delegation for several years. This has led to sub-optimal commercial outcomes for U.S. vendors and has created space for other parties to push their own agendas. Similarly, SGs 13, 15, 16, and 17 would benefit from additional active

[2] See for example, Exovera, *A New "Great Game?": China's Role in International Standards for Emerging Technologies(August 2022). Available at* https://cira.exovera.com/wp-content/uploads/2022/08/NIST-Final-Report.pdf.

participation from USG experts. We would also like to recognize and complement the effective leadership that USG staff provide in ITU-T SGs 2 and 3.

The U.S. government can create sufficient representation at the ITU and, in other limited instances where appropriate, other standardization bodies by creating more positions at NIST, the National Telecommunications and Information Administration ("NTIA"), and the U.S. Department of State to support U.S. engagement on CET standards. At a minimum, USG agencies with technical expertise such as NIST and NTIA – in collaboration with the State Department in its role as the U.S. representative to the ITU – should allocate appropriate staff expertise to addressing standards-related challenges in ITU-T. However, expanded government participation should not - in general - focus on private sector-led activities. Expanding government participation in SDOs focused on technical work may create the perception that the government is seeking to introduce a political agenda into the work of these technical, market-oriented organizations. Additionally, it is not clear that – in some cases – government participation would have a clear positive impact on the production of high-quality, commercially relevant standards.

Finally, because standards can take years to develop and because long-term relationships do ultimately matter, USG should find ways to recruit and encourage retention of these valuable individuals for the longer term, potentially via additional incentives. As USG expands participation in relevant SDOs, it should ensure that these individuals are constantly in touch with the private sector to understand what the relevant equities are and what issues might be of the highest concern to U.S. stakeholders.

V. PARTICIPATION SHOULD AIM TOWARD GLOBAL STANDARDS, NOT BALKANIZATION

As the U.S. government considers calibrating its approach to technical standards, it should keep in mind the value that global standards and conformity assessment systems have in "improving efficiency

of production and facilitating the conduct of international trade" remains a central concern.[3] Global use of voluntary, consensus standards – particularly those developed in alignment with the WTO *Principles for the Development of International Standards*[4] – allows U.S. companies to export products and services more easily to other markets by removing technical barriers to trade. By relying on international standards, companies can leverage common specifications for their products, thus creating economies of scale that lower prices, expanding consumer choice, and reducing environmental waste that might otherwise be generated by incompatible interfaces.

One characteristic of the international standardization system that enables these benefits is openness. As noted in the *WTO TBT principles*, "Membership of an international standardizing body should be open on a non-discriminatory basis to relevant bodies of at least all WTO Members. This would include openness without discrimination…at every stage of standards development."[5] This necessarily means that other countries – including China – have the right to participate in international standards development. Previous efforts to exclude Chinese entities have inflicted lasting damage on the global standardization system and to the ability of U.S. stakeholders to lead that system. Specifically, when the U.S. Bureau of Industry and Security (BIS) added Huawei to the Entity List and effectively expanded the scope of the Export Administration Regulations to include standards development, it had a ripple effect that led some U.S. entities to withdraw from standardization activities. This, in turn, allowed Huawei to take over key leadership positions and caused Chinese entities to establish exclusionary, Chinese-led standards that prevented U.S. entities from selling products into global markets.[6]

---

[3] World Trade Organization, *Agreement on Technical Barriers to Trade*, https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm

[4] The WTO TBT principles are: 1) Transparency, 2) Openness, 3) Impartiality and Consensus, 4) Effectiveness and Relevance, 5) Coherence, and 6) Development Dimension. *See Principles for the Development of International Standards, Guides and Recommendations*, World Trade Organization (2000). Available at: https://www.wto.org/english/tratop_e/tbt_e/principles_standards_tbt_e.htm

[5] Ibid.

[6] Nigel Cory, *The U.S.-China Tech Conflict Fractures Global Technical Standards: The Example of Server and Datacenter Energy Efficiency,* ITIF (August 22, 2023), available at: https://itif.org/publications/2023/08/22/the-us-china-tech-conflict-fractures-global-technical-standards-the-example-of-server-and-datacenter-energy-efficiency/.

Going forward, it is unclear whether and how "name-calling" China in the Strategy will support American objectives. The goal should be to enhance U.S. representation and ensure a transparent process, not exclude China – a substantial commercial market – from the standardization process. Framing America's national strategy with a single competitor in mind cheapens the scope of the strategy's ambition to keep standardization open, and it makes it less relevant in the long term. Furthermore, it glosses over concerning and potentially discriminatory behavior and actions by "allies and partners" to limit or disadvantage U.S. stakeholders participating in standards activities within the jurisdictions of these countries.

VI. NIST SHOULD MOVE FORWARD TO IMPLEMENT TARGETED GRANT PROGRAMS TO SUPPORT CET STANDARDS DEVELOPMENT

The matter of providing targeted incentives to organizations to increase United States engagement has been discussed for several years. The Congressionally mandated National Strategy to Secure 5G Implementation Plan in 2021 called for the U.S. government to "develop options, such as grants, tax incentive, or other actions to incentivize increased United States private sector and academia engagement in standards development."[7]

On the grants side of the equation, Section 10245(d) of the CHIPS and Science Act called for the establishment of a capacity-building pilot program at NIST to support participation by "private sector entities, institutions of higher education, or non-profit institutions based in the United States."[8] The program also contains specific expenses for which grant money can be used, establishes a merit review process for ensuring that eligible entities have relevant expertise and skills, and calls for consultation with the private sector in the course of implementation of the program.[9] TIA believes that this approach – with

[7] See Annex F; *National Strategy to Secure 5G Implementation Plan*, National Telecommunications and Information Administration (January 6, 2021). Available at: https://www.ntia.gov/sites/default/files/publications/2021-1-12_115445_national_strategy_to_secure_5g_implementation_plan_and_annexes_a_f_final_0.pdf.
[8] CHIPS and Science Act, Pub. L. No. 117-167, tit. II, §10245(d)
[9] Ibid.

its robust controls – will help encourage greater private sector engagement in standardization, while at the same providing targeted support that does not interfere with the underlying market mechanisms driving standardization.

If this program proves successful, NIST should consider expanding it into a permanent program, including other CETs, and adding additional categories of eligible entities beyond small enterprises and non-profits to include larger organizations. Additionally, NIST should focus on providing grants to SDOs during program implementation. Supporting SDOs – which qualify as non-profit organizations – would ensure that federal funds are not being used to support a parochial agenda by any particular eligible entity but instead are being used to support an overall standardization effort that has strong support from U.S. stakeholders.

On the tax credit side of the equation, the U.S. government should stop imposing new tax penalties on R&D expenditures. Until last year, businesses had been able to immediately deduct R&D expenditures from their taxable income. This provided a strong incentive for companies to invest in R&D activities, including those activities that support standardization. However, starting in 2022, because of the sunset of provisions of the Tax Cuts and Jobs Act, businesses have been required to amortize their deductions for R&D expenses out over five years for domestic R&D and 15 years for foreign R&D, instead of deducting them immediately.[10] This is a material penalty because amortizing those benefits means that they lose out on the total value of the credit because of inflation and opportunity cost, and it leads to smaller investments in R&D overall.[11]

[10] Alex Muresianu, *R&D Amortization Hurts Economic Growth, Growth Industries, and Small Businesses,* The Tax Foundation (June 1, 2023). Available at: https://taxfoundation.org/blog/rd-amortization-impact/.
[11] Ibid.

VII. GOVERNMENT'S ROLE WITH RESPECT TO SECURITY SHOULD BE NARROWLY DEFINED

Line of Effort #2 of the strategy states that "the U.S. government is uniquely suited to lead standards development on topics of national security."[12] This is not the case for many Critical and Emerging Technologies for which standards related to security are primarily technical and rightly led by the private sector. As it pertains to standards in this field, the appropriate role of government is mainly to *establish regulations and legal requirements* to protect national security – *not* to develop technical standards.

Confusion may arise here because "national security" can be understood to mean many things. As an example, the Trump administration stated that foreign automotive manufacturing was a national security threat and threatened to levy tariffs on imported products.[13] Similarly, the Biden Administration has indicated that steel manufacturing is a national security issue.[14] Setting aside the merit of these assertions, the U.S. government is not "uniquely suited" to develop standards for these industries simply by claiming that they are a matter of national security.

Even within the narrow example provided in the USGNSSCET of the U.S. government's role in developing "standards that support priority access for public safety and emergency and emergency services during disasters," TIA is concerned that Line of Effort #2 remains significantly short of the specificity needed to implement effective policy. For example, TIA's TR-8 Committee develops Mobile and Personal Private Radio standards that are used by first responders around the world.[15] Since this falls

---

[12] The White House, *United States Government National Standards Strategy for Critical and Emerging Technology*, (May 2023), 9. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/05/US-Gov-National-Standards-Strategy-2023.pdf.

[13] Trump Declares Some Auto Imports Pose National Security Threat, *Reuters* (May 17, 2019). Available at: https://www.reuters.com/article/us-autos-tariffs-usa/trump-declares-some-auto-imports-pose-national-security-threat-idUSKCN1SN1FY

[14] Joseph R. Biden, *A Proclamation on Adjusting Imports of Steel into the United States*, The White House (January 11, 2018). Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/31/a-proclamation-on-adjusting-imports-of-steel-into-the-united-states-2/

[15] Telecommunications Industry Association, *Tr-8 Mobile and Personal Private Radio Standards.* Available at: https://tiaonline.org/standards-committees/tr-8/.

within the scope of the described technologies, is the Strategy therefore proposing a federal government takeover of TIA's standardization activities? In many cases, U.S. government labs or other public entities are not suited to lead the development of technology in this area. To the extent that they do, they will likely displace cutting-edge work being done by the private sector.

In general, the appropriate guidance to apply is the one already outlined in OMB Circular A-119, which states that, "All federal agencies must use voluntary consensus standards in lieu of government-unique standards in their procurement and regulatory activities, except where inconsistent with law or otherwise impractical."[16] The appropriate role of the federal government is also underlined in EOP M-12-08, wherein it states that Federal engagement in standardization should:

- "Clearly identify the standards-based challenges it is encountering in addressing a national priority;
- Define its goals as precisely as possible;
- Provide a reasoned analysis of what has led to the perceived standards gap and what needs to be done to close it (including any relevant and appropriate science-based data); and,
- Commit, to the extent feasible and appropriate, to support the technical work necessary to achieve the defined goals."[17]

To the extent that voluntary consensus standards for security are "inconsistent with the law or otherwise impractical," as noted in OMB Circular A-119, it may then be appropriate for government to play the leading role it suggests.

[16] Office of Management and Budget, *Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities, Circular No. A-119 Revised* (February 10, 1998). Available at: https://www.whitehouse.gov/wp-content/uploads/2017/11/Circular-119-1.pdf

[17] Aneesh Chopra, Miriam Sapiro and Cass R. Sunstein, Executive Office of the President, M-12-08, https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/memoranda/2012/m-12-08_1.pdf.

VIII. NIST SHOULD SUPPORT THE HOSTING OF STANDARDS MEETINGS IN THE UNITED STATES

The U.S. government should work towards making the U.S. the best, most welcoming place to develop standards and coordinate international standards development projects. This has direct benefits to the ability of American companies to participate in and lead standards by:

- decreasing travel, lodging, and incidental costs associated with attending international standards development meetings abroad;
- lowering perceived barriers to entry for U.S. small and medium enterprises; and
- giving American participants a "home-field advantage" where they can operate in their native time zone and language.

On the other end, non-U.S. companies or companies without any U.S. presence then face inverse monetary, time, and attention costs for standards events held in the United States, giving American companies and participants a comparative advantage.

NIST can work with other government agencies to help make the United States the premier global standardization destination by removing unnecessary and burdensome restrictions on the ability of standards professionals to travel and participate in standards development activities. TIA staff have reported that it is increasingly difficult for foreign nationals to secure visas to travel to the United States to participate in standards development activities. Making it more difficult to obtain visas to the U.S. both weakens standards development programs by U.S. standards developing organizations like TIA and makes it less likely that those standards are adopted internationally. To ameliorate this issue, the State Department should consider setting up lines of communication with U.S. standards development organizations to resolve the problems in a timely fashion as they arise. More broadly, U.S. embassies and consulates should ensure that they are adequately staffed so that SDO participants do not face long lead times for visa interviews. The U.S. has lost out on several opportunities to host meetings of global

telecommunications standards bodies in the last few years because foreign participants in places, including India, stated that they could not receive visas to attend.

Another way the U.S. government might be able to make the U.S. an attractive standardization destination is by providing the use of government facilities, when desired, to Standards Developing Organizations. Renting hotels or other conference venues can be a significant cost driver for SDOs. Removing that cost could make hosting a meeting in the United States more appealing from a commercial perspective for SDOs and their members.

IX. NIST SHOULD PROVIDE GRANTS TO SUPPORT EXCHANGES BETWEEN GLOBAL SDOS

Engagement between global SDOs can be a vital force in service of an effective, global standards system and may serve a crucial bridge in supporting government-to-government collaboration. Fortunately, such initiatives between private sector organizations already exist between regional SDOs in various industries. For example, the telecommunications sector has "Global Standards Collaboration," an inter-SDO group that meets on a regular basis and includes 11 global SDOs including TIA.[18]

The U.S. should take steps to provide financial support that would help U.S. organizations effectively host these meetings. They are, frankly, expensive, and there is no direct, short-term financial benefit to participating in or hosting such meetings. TIA has given up the opportunity to host such a meeting in the past, in part for financial reasons, because while TIA supports the overall objective, hosting the meeting did not support TIA's short-term bottom line. The benefit to the United States of hosting such meetings is clear. Global stakeholders will engage directly with a broader range of U.S.

[18] GSC members include: ITU Telecommunication Standardization Sector (ITU-T), ITU Radiocommunication Sector (ITU-R), Alliance for Telecommunications Industry Solutions (ATIS), Association of Radio Industries and Businesses (ARIB) of Japan, China Communications Standards Association (CCSA) of China, European Telecommunications Standards Institute (ETSI), IEEE Standards Association (IEEE-SA), Telecommunications Industry Association (TIA), Telecommunications Standards Development Society, India (TSDSI), Telecommunications Technology Association (TTA) of Korea, and Telecommunications Technology Committee (TTC) of Japan.

commercial and government interests, leading in the long term to standards that account for the needs of the American people and our institutions.

X. U.S. AGENCIES SHOULD ENHANCE COOPERATION WITH OTHER COUNTRIES

One concrete step that the United States can take to partner with other countries in support of a rules-based, private-sector-led global standards system is to expand the number of staff working to promote standards cooperation across embassies and consulates. Right now, there are only five standards attachés across the world responsible for international standards collaboration.[19] There is a sixth position located in China, but that has been vacant for several years. These staff are also situated in the International Trade Administration (ITA) and not NIST. As such, they are responsible for addressing technical barriers to trade across a range of sectors, and standards collaboration on CET is just one part of their overall remit. To support their work, NIST could consider establishing a separate network of standards-focused attachés to represent the agency's views and positions in critical jurisdictions and to more effectively coordinate with international partners and maintain its statutory role as the coordinator of USG engagement on standards issues. Alternatively, NIST could work in a more formalized manner with the Commercial Officers at ITA or the ECON/ESTH Officers at State who have standards in their portfolio to have them operate as standards attachés.

The U.S. can also do more to share information regarding standards proposals that might raise concerns for both public and private stakeholders. The standards information exchange system set up in the context of the U.S.-EU TTC Working Group 1 is one such example of an effective coordination mechanism. Such sharing should provide valuable data on relevant proposals while not being an entirely open door for the exchange of information on national positions – given that the U.S. may still ultimately

[19] *Learn About the Standards Attaché Program*, International Trade Administration (Accessed at December 14, 2023). Available at: https://www.trade.gov/standards-attache-program#:~:text=The%20International%20Trade%20Administration%20(ITA,for%20U.S.%20industry%20and%20businesses.

disagree with its partners. Another area for improved collaboration could be publicly sharing translations of emerging standards proposals being developed at the regional level. For example, many proposals in China are raised domestically only in Chinese long before they are presented in global SDOs. Public and private stakeholders would be able to respond to these proposals more effectively if the U.S. government worked with the private sector to obtain early copies of such proposals and subsequently translated relevant ones into English. While some of this is done in a duplicative, non-public way by U.S. private sector organizations like the U.S. Information Technology Office in Beijing[20] and ANSI[21] and among Europeans through the Seconded European Standard Expert in China (SESEC) program[22], a public, government-supported repository would level the playing field for everyone by making such translations available to all interested parties, including small and medium enterprises.

XI. U.S. AGENCIES CAN SUPPORT A STRONG STANDARDS WORKFORCE THROUGH EDUCATION BUT SHOULD AVOID A FOCUS ON TRAINEES

TIA appreciates the Strategy's emphasis on the development of a strong workforce to support U.S. leadership in standard development. On a foundational level, much of what is needed for a strong standardization workforce is the same as what is needed for a strong science and technology workforce generally – namely, a robustly funded education system with opportunities to engage in meaningful STEM research, an immigration system that enables talented individuals and their families to live and work in the United States, and programs that tie theoretical research to concrete technology outcomes. Beyond this, USG can work with existing organizations like ANSI and the Society for Standardization Professionals on training programs that enable staff with foundational technology skills to focus their talents on standardization and to recognize their contributions in the field. For many staff, professional

[20] See standards reports available to USITO members at the U.S. Information Technology Office website: https://usito.org/.
[21] See members-only ANSI in China newsletter and other resources available here: https://ansi.org/trade-development/standardization/regions/china.
[22] *New SESEC website will improve mutual understanding of Chinese and European Standardization Systems*, ETSI (November 2, 2015). Available at: https://www.etsi.org/newsroom/news/1023-2015-11-new-sesec-website-will-improve-mutual-understanding-of-chinese-and-european-standardization-systems.

development and recognition within their companies are important to retain talent. By default, an up-and-coming engineer might find more short-term recognition within their company and industry by participating in product development or cutting-edge R&D, as opposed to focusing on standardization and interoperability. Finding ways to enhance the perceived value of standardization contributions within the science and technology workforce can support the development and retention of the next generation of standards professionals.

The Request for Comment also asks a question related to leveraging students and trainees. In a private sector context, students and trainees may not be ideally suited to providing meaningful contributions to standards. In general, companies need to trust that whoever is representing them in standards activities truly understands the organization's interests, business models, and philosophy. This comes with time, and students and trainees generally have not spent enough time within an organization to have built that credibility. To the extent that unqualified trainees are incentivized to participate in the process, it may not support the end goal of high-quality, commercially relevant standards.

XII. NIST, DOJ, AND USPTO CAN SUPPORT SDOS BY CRACKING DOWN ON THE THEFT AND UNAUTHORIZED USE OF STANDARDS DOCUMENTS

SDOs incur significant costs in developing standards, including wages and benefits for staff who support committees, the renting or maintaining venues to host meetings, and expenses related to ongoing legal compliance. One way that SDOs recoup these costs is by charging for the sale of those documents to customers. In some instances – particularly in markets outside of the U.S. – standards documents are improperly copied instead of being paid for by customers. To support the ability of U.S. SDOs to operate on a commercial basis, NIST should work with the U.S. Patent and Trademark Office to ensure that documents are not being used without payment and authorization by commercial entities. This will support SDOs like TIA, which is structured as a non-profit organization, and allow them to expand their work in standardization and potentially lower costs for participants. To this end, the Department of Justice – in consultation with NIST – could also file amicus briefs in standards-related copyright cases to argue

that third parties cannot abuse fair use to distribute copyrighted material developed by SDOs without prior authorization.[23]

XIII. CONCLUSION

TIA appreciates the opportunity to provide comments on the USGNSSET implementation plan. TIA believes the USGNSSCET is an opportunity for the government to think comprehensively about how to partner with industry in support of a competitive U.S. posture in the global, private sector-led standards ecosystem. As an organization, TIA has proudly developed cutting-edge technical standards for the telecommunications sector since the 1950s, and we look forward to continuing to partner with the U.S. government to continue to do so for years to come.

By:

Patrick Lozada
Director, Global Policy

Tom McGarry
Vice President, Standards

TELECOMMUNICATIONS INDUSTRY ASSOCIATION
1310 N. Courthouse Road
Suite 890
Arlington, VA 22201
(703) 907-7700

Filed: December 21, 2023

[23] See for example *Am. Soc'y for Testing & Materials v. Public.Resource.Org, Inc. 82 F.4th 1262 (D.C. Cir. 2023)*. Available at: https://scholar.google.com/scholar_case?case=8728399751959785850.